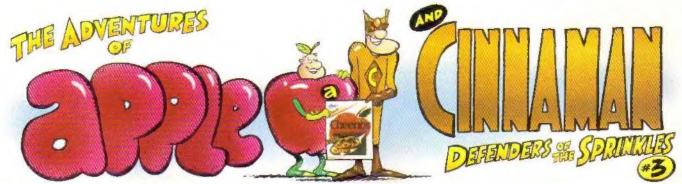
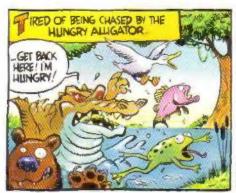
JULY/AUG 1992

CHILDREN'S TELEVISION WORKSHOP EXPLORES THE WORLD

CONTACT

SCIENCE MAKES A OLYMPICS!



























Publisher Nina B. Link Editor-in-Chief Jonathan Rosenbloom Editor Curtis Steplan Al Nagy

Semor Editor Elizabeth A. Vitton Associate Editor Beth Chayet Lectorial Assistant

Robert Moll Assistant Art Director Nadina S. Simon Photo Addor Jacqui Wong

Arrector of Research Magazine Group Dr. Renee Cherow-O'Leary Doseurrh Marrager Venesse Bing Tesearcher Julie Seylert

Drychy/Creative Services
Aura Marrero

firstip Vice President/General Bill Hitzig Vior President/Finance
Julie K. Andersen

Vice President/Circulation Kathleen O'Shaughnessy Circulation Operations Manager June Wick lation Markening Manager

Jane Cazzoria Production December Carlos N. Crosbie Senior Production Messager Sharon Djaha Carolyn Almens

Assistant Prediction Manager Kerry Giles

Vor Proudent Advertising Linda Vaughan Gail Deloth

Manufer of Special Projects Karen Slegel Gruenberg

Serior Sales Representative
Valerie Wilpon
Serior Sales Pepresentative
Laura Billings
Advertising Research Coordinator
Alecia Lane-O'Noill

Dr Gerald S. Lesser

Dr. Charles Welcott Director, Lab, of Oreithology, Corpoli University Dr. Jearl Walker

Protosprat Physics, Cleveland State University Dr. Charles A. Whitney





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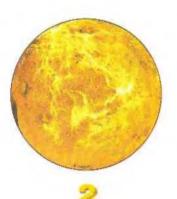


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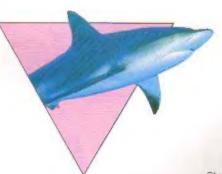
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ON OUR COVER

Olympic super swimmer Janet Evans streamlines her body to cut through the water. Photo @ Ken Levine/Allsport

The Bus Stops Here

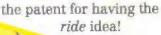
When it comes to seat belts, there's no stopping Aaron Gordon of Miami, FL. The 10-year-old says school buses without them just don't pass the test.

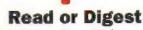
Aaron got the idea to
put seat belts in buses
after he was taken for a
bad ride. "Our bus
stopped short," he
recalls, "and everybody
got jolted out of their
seats. I thought, 'Seat belts
could stop this.'"

So Aaron got 4,000 people to sign a petition. He then went to the local school board to argue for shoulder-and-lap belts. The school board said they would cost too much.

But that didn't stop Aaron. On a plane trip, he noticed that flight attendants wore shoulder-hugging straps during take-offs and landings. Aaron thought they could be used on buses.

He then met with a local lawmaker and convinced him that it was time to buckle up. Based on Aaron's suggestion, a research company is now working on a new seat belt. If it works, Aaron's name will be on





Have you "herd" the news? Cows may soon start recycling newspapers...by eating them!

Larry Berger, an animal nutrition expert at the University of Illinois, says he has come up with a way to feed newspapers to cattle. How does he make it easier for them to stomach? By boiling the paper!

(But he only boils those with

soybean oil-based ink. "Normal" ink isn't healthy for cows.)



Although newspaper doesn't have a lot of vitamins, it does have cellulose—which is also found in plants. Cows can digest its energy-rich molecules.

Berger thinks boiled newspaper could replace as much as 40 percent of a cow's diet! A cow, he says, could eat about 10 pounds of old newspapers every day.

And that's good news for the environment. The U.S. recycles about six million tons of newspaper each year. Still, there are more newspapers than the recycling plants can handle.

But there *are* plenty of cows ready to digest the news. "About 30 million cows live in the U.S.," says Berger. "If they were fed a diet of 20 percent newspapers, there'd be no 'leftovers'!"



Map Time

On its 950th orbit around Venus, the spacecraft Magellan beamed radio signals through the thick clouds that constantly cover the planet. The signals bounced right back.

But suddenly, a bunch of radio waves didn't make the round trip. Did a black hole swallow them up? Nope. More likely, the waves were absorbed by a 6-mile-high active volcano. It's one of many that NASA scientists think exists on Venus.

Thanks to the Magellan flybys, NASA scientists have pieced together thousands of amazing images. They now have the first detailed map of Venus. "We probably have a better global map of Venus than we have of Earth," says one NASA scientist.

The map is giving Earthlings a better picture of Venus. It shows pancake-shaped volcanoes gathered near the equator and a river of lava that snakes 4,200 miles across the planet.

But Magellan hasn't finished exploring this hot planet (its temperatures reach 900 degrees F.). By the time the mission ends in 1995, there will be four trillion new bits of information. Try reading that map!

Global Hues

Sometimes things aren't always black or white. At least that's what the folks at Crayola think. Since people come in all colors, they've come up with a pack of skin-tone colors.

Their new eight-crayon "global pack" includes peach, tan, apricot, sepia, burnt sienna and mahogany, plus black and white. And the box also has a colorful new logo: a blue globe. After all, we are the world, we are the ...crayons!



PHOTO COURTESY BINNEY & SMITH

Poach Busters

It's time to stop illegal hunters—called poachers—who track down and kill thousands of wild animals each year. So who you gonna' call? Poach busters!

Menentaleus and a second and a

You'll find them at a division of the U.S. Fish and Wildlife Service in Ashland, OR. The wildlife crime lab works on cases where the "mostwanted" are poachers and the victims are animals

> When law officials catch suspected poachers with their "animal loot," they send the evidence to the crime lab.

That's when the super sleuths go to work. They can, for example, now use a technique to link blood stains on a hunter's clothing to an individual animal. Or use an electron microscope to identify illegal elephant ivory.

The lab is making sure that crime doesn't pay. Many poachers have already been arrested. "There's a growing feeling among poachers," says one poach buster, "that the easy life is going to come to an end soon."



So What's New?

You tell us and you'll get a nifty CONTACT T-shirt—if we print your story. Send us any science story from the news that you think our readers would like to know about. (Be sure to tell us your T-shirt size and where you heard the story.) Send to:

TNT 3-2-1 CONTACT Magazine 1 Lincoln Plaza New York, NY 10023



By Christina Wilsdon

ARE FIREWORKS MADE?

Very carefully! A firework packs a lot of explosive power. That's why only experts should build and set off fireworks.

Fireworks start off as simple rockets. The rocket is made by packing two kinds of gunpowder into a paper tube. One kind burns after being lit by a fuse. As it burns, it releases hot gases. These gases flow out the bottom of the tube and propel the rocket into the sky.

When the rocket is high in the air, the burning gunpowder ignites the rest of the powder, which is called the "charge."

And then—KA-BOOM!—the charge explodes.

Firework makers, who are called "pyrotechnists," add chemicals to the gunpowders to make colors. They put in charcoal to give the firework a flery tail. By packing the gunpowder in different arrange-

ments, a pyrotechnist can make rockets spin or explode in stages. And firecrackers in the rocket's nose add some extra boom to the rocket's

Question sent in by Sean Cullen.

MODES ICE FLOAT IN A GLASS OF WATER?

Ice cubes float in a glass of water just as icebergs float in the ocean. Your ice cube is a lot smaller, and you won't find polar bears in your glass—but the reason they float is the same.

When most substances get cold, their molecules vibrate slower and move closer together, or "contract." But not water. Water molecules do slow down when the water temperature drops below 39 degrees Fahrenheit—but they move apart, not together.

When water freezes, its molecules arrange themselves in a neat, orderly pattern as they move apart. This pattern takes up more space than unfrozen water molecules. That's why water expands, or gets bigger, when it freezes—and why water pipes burst if they freeze in winter. The expanding water cracks them open.

The spread-out molecules of ice are not as dense as water molecules. So they float on top of the water. That's what keeps those cubes in your glass clinking instead of sinking!

Question sent in by Jack Milner, Dayton, OH.







HUMAN BODIES EXPAND IN HEAT?

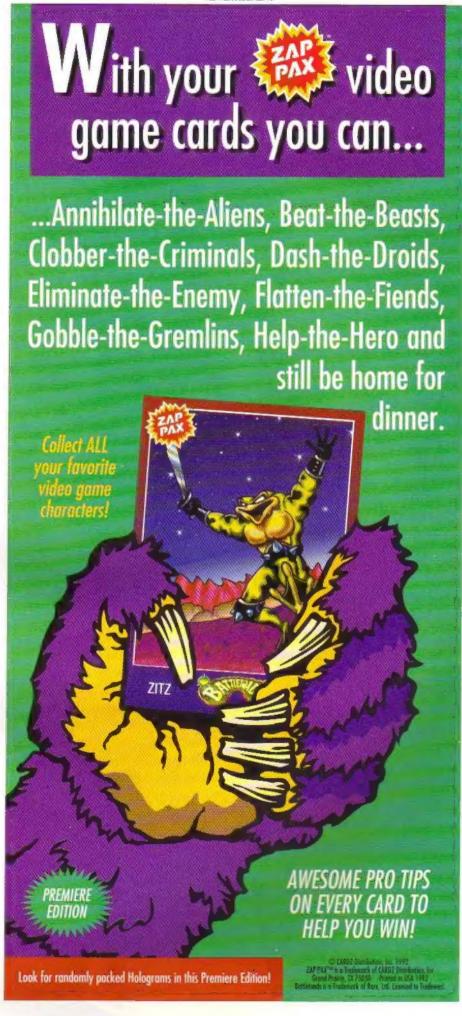
Almost any material expands (gets bigger) when its temperature rises. Metals do. So does water.

Because it's about 65 percent water, your body, it seems, should expand, too. But living things deal with temperature changes differently from nonliving things.

For example, you sweat to cool off your body. You shiver when you need to warm up inside. Your body is designed to keep your insides humming at 98.6 degrees Fahrenheit at all times. (If you're sick, your temperature rises to help fight infection.)

Your body does change size during the day, though. For instance, you're usually taller in the morning than in the evening. That's because the soft discs in your spine lose liquid after being squeezed all day long. At night, the fluids build up again. Fluids make your feet swell during the day and make your shoes pinch, too. Ouch!

Question sent in by Elizabeth Turner, Jacksonville, FL.





BOOKS

Model a Monster

by *Colin Caket* Sterling Publishing, \$7.95

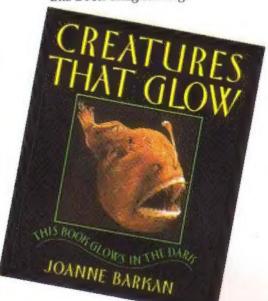
Dinosaurs have been extinct for millions of years. But now you can bring them back to life. This book shows you how to make dinosaur models out of everyday objects like coat hangers, cardboard and even ice cream. They're fun to play with, but don't let these monsters mash your room!

Creatures That Glow

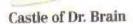
by Joanne Barkan

Doubleday Publishers, \$13.99

It's hard to look at most books in the dark. But not this one! That's because the pictures glow. First read about bugs, fish and plants, then flick the switch and watch them shine. You'll find this book enlightening!



Psst! Need a few extra bucks? This book shows 101 ways to make money: Start a pool-cleaning business, walk your neighbors' dogs or mow lawns. You may not become a millionaire overnight, but with these tips and a little work, you should fill your piggy bank.



Sega of America, \$59.95

Lost in space, alien rappers

searching for parts of their ship,

Earthlings as the nerdherd and

the insane dentist. Hi-top sneak-

they must dodge such strange

ers, tomatoes, slingshots and

other goodies picked up along

the way help this funky duo sur-

vive. Talk about being alien-ated!

Toe Jam and Earl crash on a

weird planet: Earth. While

for *IBM* and *compatibles* Sierra On-Line, \$49.95

Mad scientist Dr. Brain needs a lab assistant. To get the job, you must pass a test: Find Dr. Brain, who's hiding in his castle. No problem? Problem! To get from

one room to another, you have to solve mind-boggling puzzles. Great graphics make it fun to figure out word games, mazes and other fiendish challenges.

Locating Dr. Brain takes real brain power!





O TERTISEMENT

TAKE A LOOK AT THE HOTTEST

Are you looking for a different
way to spend your summer?
How about...summer school?
Not the usual kind, but one where
you can fly a plane, dig in a ruin
or dive with sharks!
We're talking cool school.
The kind you won't mind staying
after class for.
Here's a look at what some kids
were up to last summer



A student pilot gets ready for take off.

Up in the Air

Some people might say these kids have their heads in the clouds. And they'd be right! They're students of Cloud Chasers, a flight-training program for kids in Plainville, CT. These young pilots learn everything about planes—from repairing engines to coming out of spin dives.

Students take turns

e turns

through more checklists. You start up the engine,
taxi down to the end of the runway,
push in the throttle and then...take off!"
What does it look like from the pilot's seat?
"At about 1,500 feet, there's just blue all around,"
Bridget Chalker, 12, told CONTACT. "The cars and buildings look like miniature models."

Before joining Cloud Chasers, Bridget had never been in a plane. So, why did she want to fly one? "Well, flying a plane isn't an everyday thing, especially for somebody who's 12 years old. It's a challenge!" Is it scary? "Not for me," she says. "I'm not afraid of heights."

For more information on Cloud Chasers, write to: Cloud Chasers, Interstate Aviation, Inc., Robertson Airport, Plainville, CT 06062.

piloting a single-engine aircraft. During each flight, an instructor is on board. (By law, students can't fly alone until they are 16.)

Before flying, students spend time in "ground school." They have to know where all the instruments are and what each one does. "It's a lot of hard work, but it's exciting," says 11-year-old Chris Sabolcik.

"Before you get into a plane, you have to go through a checklist to make sure it's able to fly and you can fly it safely," Chris told CONTACT. "Then, once you're in the plane, you have to go

SUMMER SCHOOLS AROUND





Can You Dig it!

A group of kids in Flagstaff, AZ, spent their summer doing a lot of dirty work. But they didn't mind. That's because they were digging up pieces of Native American history from an ancient village. The village, Elden Pueblo, was the 11th-century home of the Sinagua (say: sin-OW-a) Indians.

The young archeologists (say: ark-e-OL-o-jists) were taking part in a summer adventure program run by the Museum of Northern Arizona. By digging up the remains of an ancient city, the kids learn how people lived a long time ago.

Each pair of kids was assigned a certain space to work in. Armed with trowels, brushes, dustpans and buckets, they carefully removed layer after layer of dirt. "First we had to loosen the dirt in the bottom of our area of the ruin. Then we

Not Just Monkey Business

Don't freak out if you see a 12-foot-long Burmese python wrapped around six Junior Keepers at the Audubon Zoo in New Orleans, LA. The kids are just doing their job.

Junior Keepers spend one month during the summer in 200 school. Here, they learn how to safely handle animals. They also learn how to teach others to appreciate and protect animals.

After the training program, Junior Keepers work at least three hours each weekend. "It's a whole year commitment," says Junior Keeper Michelle Martinez, 12. "But ever since I was little. I've always wanted to work with animals."

While the kids don't come in contact with lions or tigers or bears, they do work with lizards. birds, alligators, chinchillas, ferrets and hedgehogs! The Junior Keepers prepare the animals' special diets, feed them and clean out their cages.

The Junior Keepers also teach zoo visitors about animals. "People need to know more than just about animal habitats being destroyed. You also have to let people know why this is happening and what they can do to help," Junior Keeper Nia Colemban, 13, told CONTACT.

"Endangered species don't have to become

extinct," adds Michelle, "We want the same animals to be around when we get older."

If people can't go to the zoo, the Junior Keepers take the zoo to the people! The Zoo Mobile travels to hospitals and retirement homes. "Peoples' faces really light up when they get to touch animals," Nia describes. "One time this lady said, I'm 97 years old and this is the first time I've ever touched a snake."

"Some people are kind of funny about snakes," says Michelle. "But they're my favorite animal."

For more information on the Junior Keeper program, write to: Audubon Zoo, Junior Keeper Program, P.O. Box 4327, New Orleans, LA 70178.



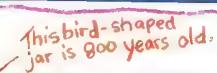
Junior Keepers hold a boa constrictor.

brushed it into a pan," explains Peter Johnston, 12. To find the artifacts, or objects, from the past, the students sifted the dirt through a screen.

How did they know an artifact when they saw one? "One way to tell the difference between a bone and a rock was to lick it," says nine-year-old Marta Johnston. "If it stuck to your tongue, it was a bone." (Tiny holes in a bone absorb moisture from your tongue.)

Some of the artifacts the young archeologists uncovered

were 800 to 900 years old. "I found a couple of arrowheads, lots of clay dolls and some stones that the Indians used to smooth pottery," 12-year-



old Leif Munson told CONTACT.

"It's more fun to learn about history by doing something like this instead of reading about it,"

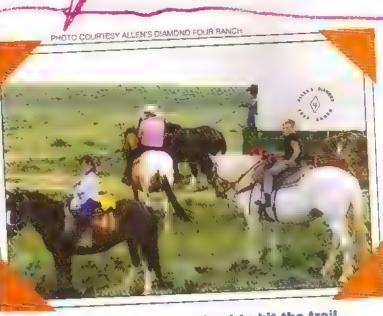
adds Sandra McLaughlin, 14. "But you have to be really patient. You don't find stuff all the time."

The artifacts that were found will allow scientists to uncover the secrets of the Sinagua culture. "Studying other cultures may help us solve problems in our own culture," says Leif.

For more information on the

young archeology program, write to:

Museum of Northern Arizona, Education Department, Route 4, Box 720, Flagstaff, AZ 86001.



Yippiel Campers are about to hit the trail.



"'Get up!' our guide yelled. It was 7:00 A.M., and we were camped out in the wilderness in the Wind River Mountain Range in Wyoming," describes nine-year-old Briant Wiles.

"We walked down to the stream and brushed our teeth. Then we cooked bacon and eggs over a campfire. By 8:00 A.M., we broke camp—packed away our tents and equipment, saddled our horses, loaded up the pack horses and got ready to leave. Then we rode for a full day," he adds.

This was only one of 10 days a group of happy

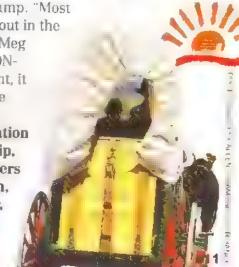
campers spent kicking up dust on a pack trip through the mountains. There were no phones, no TV and no showers!

Before setting out into the wild West, the kids learned lots of new skills: horseback riding, fishing, map reading, cooking, hiking and survival. And while out on the dusty trail, each kid got to drive a horse-drawn chuckwagon. The young wagoners rode along the Oregon Trail—the same trail traveled on by thousands of pioneers heading West in the mid-1800's. "And it's still bumpy!" laughs Theresa Emmerich, 11.

Most of the trip was spent on horseback. Each day the kids would ride about 10 to 15 miles. Sometimes they stopped to fish or to swim in an icy cold stream. "One time, my friend and I caught 10 fish each in 15 minutes," says Theresa.

When it began to get dark, the group rode off the trail and set up camp. "Most of the time, we were out in the middle of nowhere," Meg Schreiber, 11, told CONTACT. But for the night, it was their home on the range.

For more information on the youth pack trip, write to: Allen Brothers Diamond Four Ranch, P.O. Box 243, Lander, WY 82520. ◆





him—a crank from a model-I' Ford, a newspaper headline about the sinking of the *Titanic*, a gas lamp, a derby hat, a crystal radio set, a baseball autographed by Babe Ruth—in a sealed box. On your tenth birthday, he gives you the box. You've got a time

capsule!

Time capsules come in all shapes and sizes. Some are made of stone, tin, brass or other met als. Some are boxes or safes And they hope to find lost capsules. The ITCS is located at Oglethorpe University in Atlanta, GA.

For the Ages

Oglethorpe University is also the home of one of the greatest of all time capsules, the "Crypt of Civilization." (A crypt is an underground vault.) This amazing time capsule will give future peoples—or perhaps alien visiThe crypt is about the size of a swimming pool. It's inside the granite foundation of a building. (Building foundations are so strong, they can last centuries). If visitors from space ever do dig it up, they'll find thousands of objects, both silly and serious.

They include a set of Lincoln Logs, encyclopedias on microfilm, model trains, instructions on how to perform surgery, a plastic ash tray, binoculars and a Kodak camera. There are film clips of Adolf Hitler and Popeye the



Sailor, as well as Donald Duck and Lone Ranger dolls. And for tongue-tied extraterrestrials, there's a device to teach them English.

"It will be an incredible reference for archeologists of the future." says Hudson.

In 1940, the caretakers made the crypt airtight—to better preserve the objects inside. Then they welded shut its huge, stainless steel door. The Crypt of Civilization is supposed to be opened in the year 8113. Why that year? Well, according to the builders of the crypt, civilization began in Egypt in 4241 B.C. Work on the crypt started in 1936, which is

6,177 years after 4241 B.C. And 6,177 years after 1936 is 8113 A.D.

Sometimes it's hard to recall where you left your sneakers a day ago. Imagine trying to remember where something was buried six centuries ago! Luckily, the U.S. government recorded the latitude and longitude of the crypt. So if future people can find those measurements...

The walls of the crypt look a little like those of an Egyptian burial chamber. That's no coincidence. The idea for the crypt came from the tombs of the ancient Egyptians.

"Egyptian burial chambers-

like the
Pyramids—
were, in a way,
ancient time capsules," says
Hudson. "Much of what we know
of Egyptian culture comes from
objects found in these tombs."

Capsule "Keepers"

Modern time capsules are based on a "cornerstone-laying ceremony," explains Hudson. During this ceremony, people place interesting objects inside the cornerstone of a new building. It's opened when

the building is torn down.

The first time anyone used the words "time capsule" was during the 1939 World's Fair. One large company gave that name to a seven-foot-long, torpedo-shaped container. Now stored in Flushing Meadow, NY, it will be opened in 5,000 years—if anyone is around to open it!

There will definitely be people around for the opening of the Washington State Centennial capsule. It will take place in 2014. Located in Seattle, WA, the time capsule was filled in 1989. Then it was placed in a large safe. Attached to it, like a honeycomb, are 16 identical, steel time capsules—each of them empty. Every 25 years, another capsule will be opened, and new objects put in it.

Hundreds of volunteers, all 10 years old in 1989, are the "Keepers of the Capsule." In 2014—

when they are 35—the "Keepers" will put new items in the first of the 16 capsules. They'll also choose new "Keepers." By the time 2389 rolls around, people who open the capsule will know what life was like over the centuries

The Washington State Centennial capsule is one of about 10,000 time capsules in the United States. When the U.S. held its 100th anniversary in 1876, people celebrated by burying hundreds of time capsules. And for the 200th anniversary, in 1976, every state and U.S. territory made a time capsule. Many will be opened in 2076.

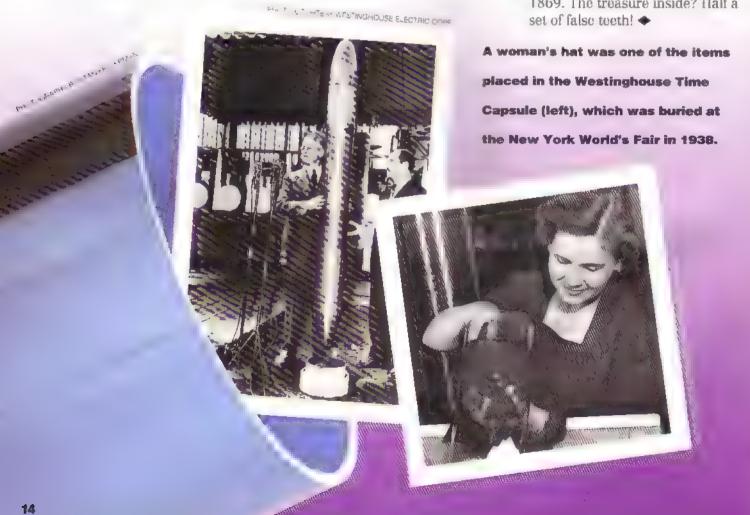
The Lost Capsules

Unfortunately, early time capsules have been lost. And new ones may be lost unless people keep careful records. "The odds are that people will forget about time capsules," explains Paul Hudson. That's why the ITCS is trying to track down lost ones.

For example, there is the *M*A*S*H* time capsule. This was buried by the cast of the hit TV series in a secret ceremony. It contains props and costumes from the show. It was buried in 1983, somewhere in a movie studio parking lot in Hollywood. But no one remembers where.

One lost capsule is buried somewhere in Kingsley Dam, in Lake McConaughy in Nebraska. In 1941, workers lowered the copper capsule into the three-mile-long dam. The capsule's creators sent a plaque noting its exact location to the state capitol. But it got lost.

Then again, maybe some time capsules should *stay* lost. Recently, the town of Washington, PA, opened a time capsule from 1869. The treasure inside? Half a set of false teeth! ◆





- 2. Select a container. As long as the inside of the container is cool, dry and dark, your objects can be preserved.
- 3. Find a safe location. It's best not to bury your time capsule in the ground—thousands have been lost this way. Instead, find a good, visible place. For example, try your school's library or cafeteria. You might be able to get permission to place it in your city's town hall.

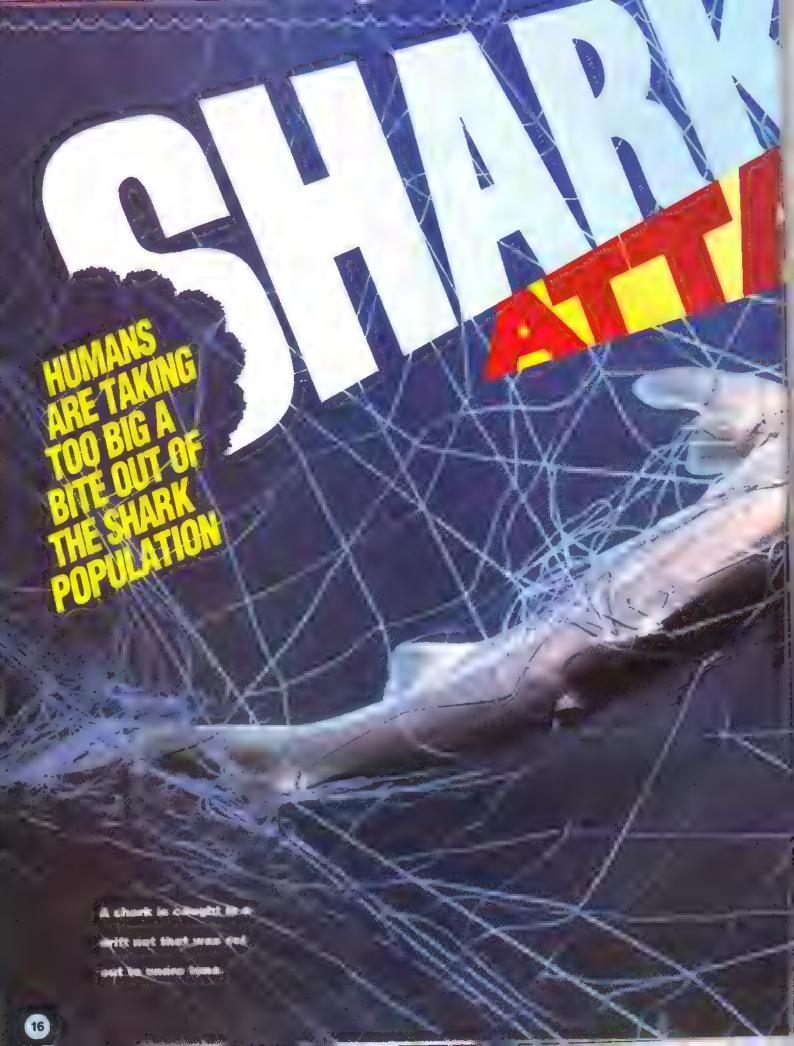
Make sure to mark the location of the capsule with a note describing its "mission." (The mission is the reason for making the capsule; for instance, to let people know what their town or city was once like. Or to remind you or your friends what you were like as kids,?

- 4. Include a variety of things. Think about what would interest people of the future. Put in funny and serious items: for example, Madonna posters, a list of your favorite TV shows, baseball cards or presidential campaign buttons. Keep a list of all items sealed in the capsule.
- Have a sealing ceremony and take pictures of the event. Give your capsule a name.
- 6. Don't forget your time capsule. Keep interest high

by holding anniversary ceremonies. (In honor of their city's time capsule, Braintree, MA, has an anniversary celebration every July 4th. They check to make sure it's still locked.)

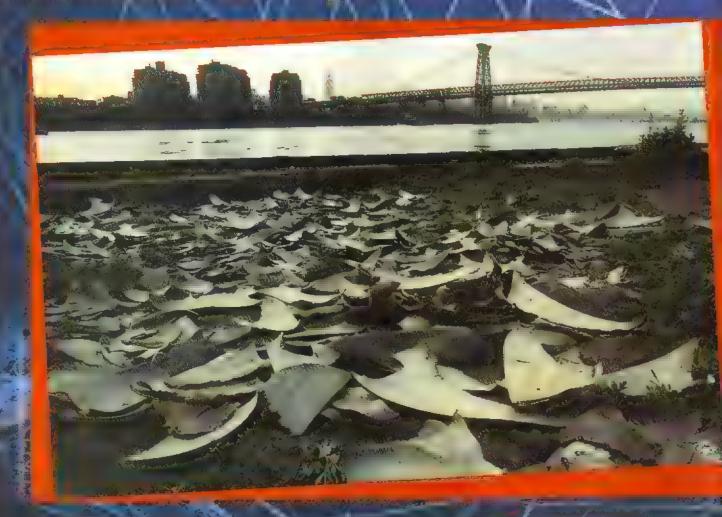
7. Inform the ITCS (at the address below) about your completed time capsule. They will add your timely treasure to their computer list.

To find out more about time capsules, send a self-addressed, stamped, business-size envelope to: International Time Capsule Society, c/o Registrar's Office, Oglethorpe University, Atlanta, GA 30319-1441.





Shark Dinner



Sharty than are drive on a ic in Beninklym, NY, Then بالأذور بريا الشيسوية ادريا إزار arit din soup



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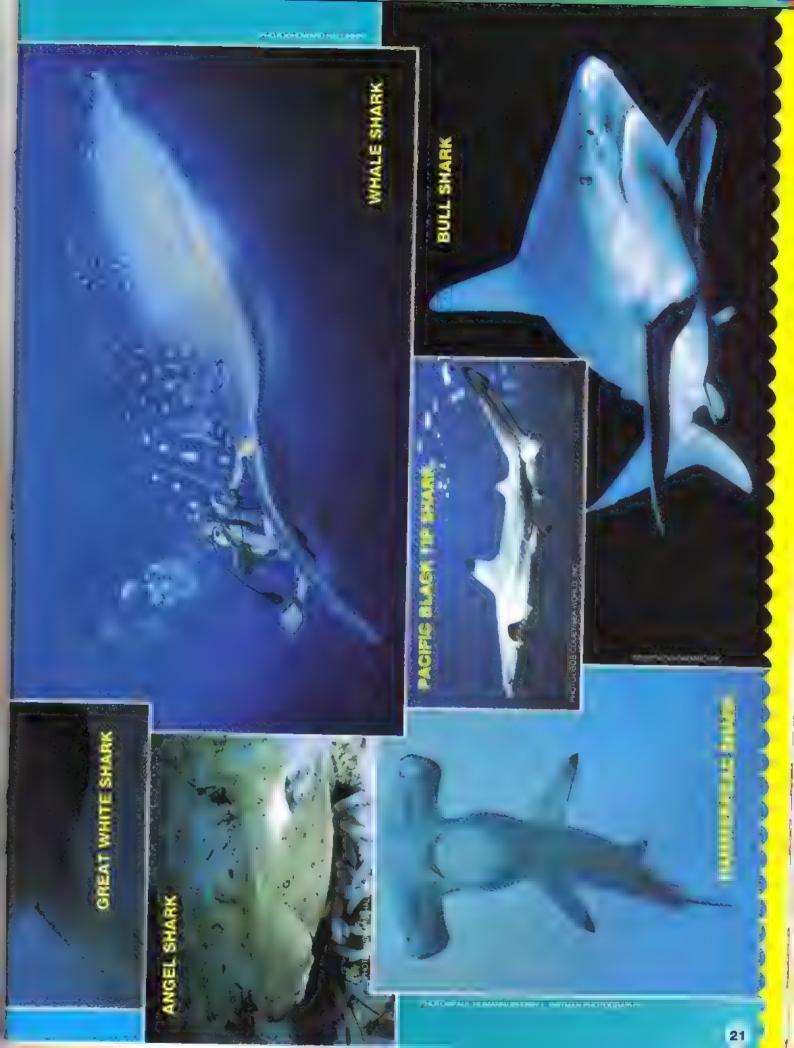
A Best Friend?

The Process of the Control of the Co

meaning thought. What is the fearest shark, must cut to be used in human a beneficional.

The Man government is taking some action minds save sharts with the Shart Managemen Plant Dr. Trefreis Kommerse, a scientist with the U.S. National Marine Pisioline Service, hold DONUMED The Shari Mahagement Plan semi a irest on the manufact of charles that a lishes man mentako Algia in data in definite beginning and inding period for the charte hunting season.

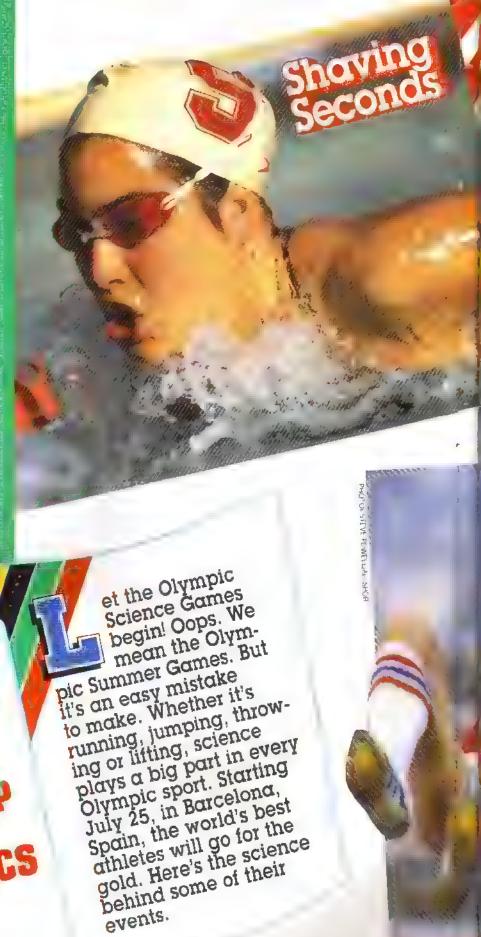
But sparks don't know about patiental boundaries. They make in all the occase and pose of the world, says in Keinmerer He was iten that the U.S. plan is use the first step duce un get the livited States plan into effect our part step to to work with threigh characters, Wormed informational properation. From you trans. Therein will be made in the nections times again. CARIBBEAN REEF SHARK Ang creatures as they move a few of them, plus some amazing shark facts! HOTOCK STUART WESTMOMLANDITION STACK & ASSOC eep affoat A 3-2-1 CONTACT POSTER







ACE



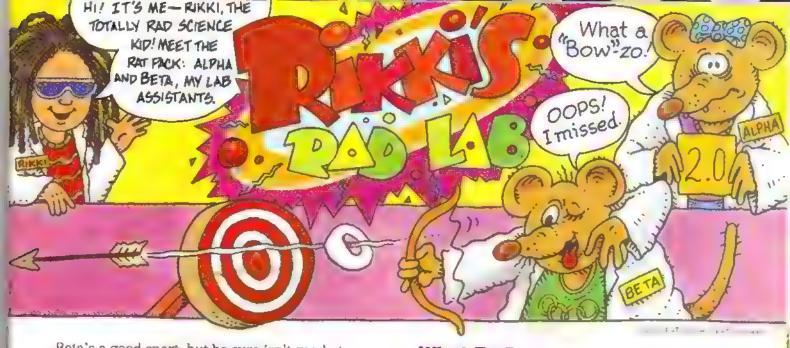




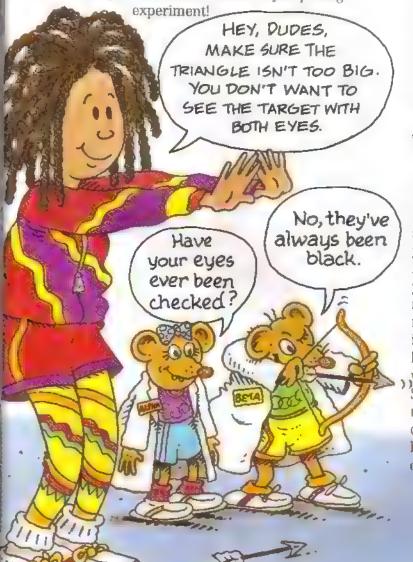
400-meter race and you'll see something staggering. The runner in lane two starts a few meters (a meter is 3 3 feet) ahead of the runner in lane one (the innermost lane) is starts a few meters ahead of the starts a few meters ahead of the runner in lane one. The athlete in the outer and so on. The athlete in the outer er starts behind everyone else. It's called a staggered start is it fair? Yes The farther runners are from the inside of a curved track, the greater the distance they must travel around the track. Staggering a race is a way of making sure that everyone runs the same distance.

Like a plane, a pole vaulter must build up speed before takeoff. The vaulter first sprints toward the bar. When the vaultiplants' the pole, he transfers the power of the run into the pole. This makes it bend. The faster the vaulter runs, the more energy goes into the pole, and the releases that power. This helps launch the vaulter. He then uses his strength and coordination to twist himself over the bar.





Beta's a good sport, but he sure isn't good at them. (He even drops the sports page!) You should have seen him when he tried out for the Olympic Archery Team. Yikes! I've seen better eyes on a potato! It's obvious that he doesn't know which is his dominant eye. Want to find out which is your dominant eye? Then check out this eye-opening

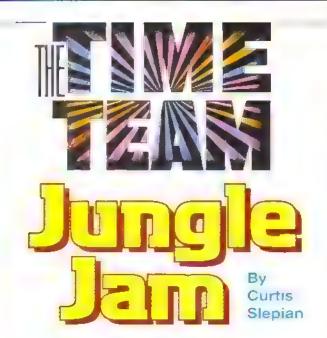


What To Do

- 1. Put your arms straight out in front of you. palms facing forward.
- 2. Make a triangle with your hands by overlapping your thumbs and fingers. (The opening must be small enough so you can see through it with just one eye.)
- 3. With both eyes open, look at a distant object through your "triangle."
- 4. Keeping both eyes open, slowly bring the triangle back toward your face. The object should still be in the opening. Whichever eye the triangle ends up in front of is your dominant eye.

Why It Works

Not sure if the eyes have it? To double check. put your arms out again. Without moving your hands or head, look through the triangle at the distant object. Close your right eye. If the object stays in the opening, your left eye is dominant. If you were an archer, you would shoot lefthanded. If, when you close your left eye, you only see your left hand, then your right eye is dominant. And you'd more likely get bull's-eyes shooting right-handed! No one knows-not even Alphawhy one eye is dominant. Some people, but not many, don't have a dominant eye. So they'd be able to shoot from either side.



"Don't be a slug, Sean!"

Jenny Lopez was going to a "Save the Rain Forests" rally But Sean Nolan wouldn't come along.

"Don't you care about the environment?"

"I've got more important things to worry about," Sean answered

Jenny smirked. "Like what?"

"Like what to do all day now that school's out."

Then Sean got an idea. "I'll go to that rally—if you take a time trip with me right now."

When Jenny said okay, Sean thought, "What a joke. No way I'm going to some dumb rally."

At Jenny's house, they went upstairs to her room. She took out her time machine. This was a science fair project on sub-atomic particles called tachyons. The machine somehow allowed them to travel through time. But they never knew when or where it would take them.

"I think I forgot something," hesitated Jenny. But she pressed the start button anyway. With a flash of light, the teens disappeared.

An instant later, they were in the path of an out-of-control, five-foot-long rodent. The grunting creature knocked them down. A moment later, they saw what was chasing it: A five-foot-tall man. He had strange designs painted on his face. And stuck

through his cheeks were little wooden sticks

He was pointing a bow and arrow at them. The man started yelling in a strange language.

"What's he saying?" said Sean.

Jenny groaned. "I knew I forgot something: the universal translators."
(They got these on a

time trip to the 21st century. The translators let them understand and speak any language.)

The man forced the teens through a deep forest. "It's really hot here," complained Sean. "And these mosquitoes are outrageous."

"There are so many weird-looking plants and insects in this jungle," observed Jenny. "This can't be the Earth of our time."

Strangers in a Strange Land

After a long walk, they reached a primitive village built in a clearing. Houses were made of leaves piled on wooden poles. People wearing very little clothing rushed to gawk at the teens.

Sean laughed, "Hey, we come in peace, dudes."

A man pushed to the front of the crowd. He seemed to be in charge. He pointed at himself and said, "Byami."

"Hi, Mr. Byami," said Jenny politely.

Byami ordered the teens' captor to lower his bow. But then another man, holding a long club, rushed up. A villager hissed what must have been his name: Komasha. Komasha threatened the teens. But Byami stepped between them. Then the two men began arguing.

Byami won the shouting match. Komasha pointed angrily at Sean and Jenny, then stalked off. The teens didn't understand his words—but they knew they had made an enemy.

"We must have landed many thousands of years in the past," said Sean.



"I agree," Jenny replied. "The animal that ran into us is definitely some prehistoric guinea pig."

"With Komasha on our case, I vote we leave,"

"For sure." Jenny took out the time machine and pressed the start button. They were still in the village. She pressed it again. "Uh-oh. Maybe it broke when that animal knocked us down."

They looked inside the tachyon machine. Jenny couldn't figure out what was wrong with it. "I just put in new batteries, so that's not the problem."

Would they be stuck in this ancient world for the rest of their lives? Even though it was hot, they shivered in fear.

Just then, a villager gestured for them to follow her. In a nearby clearing, a fire was burning. People were seated on the ground, eating.

"Lunch time!" said Sean, nearly feeling happy.

Then he saw what was cooking: roasted caterpillars! He didn't want to insult the people, so he bit into a crispy insect. It sort of tasted like a greasy french fry. Only worse—much worse.

"Where's the ketchup?" he moaned.

them everything they needed to live. The people looked a little frightening. But they acted the way most people do anywhere. Neighbors chatted, kids played, people cooked and worked, "In a bizarro

way, it's kind of like home," said Jenny.

laughed. "Yeah, well, you look pretty strange to

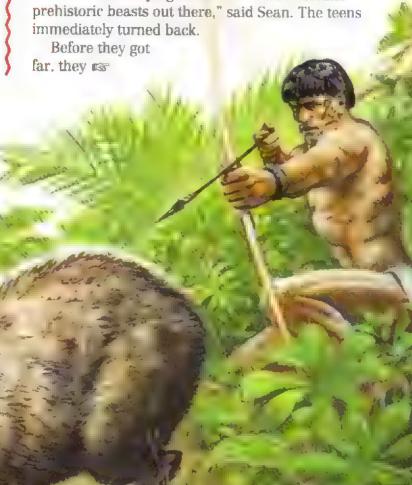
But the villagers seemed happy. Nature gave

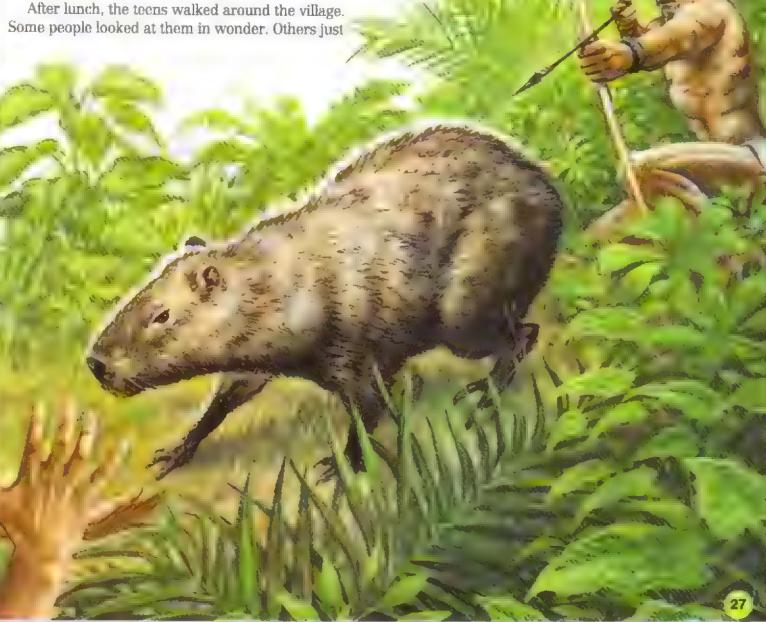
me," sneered Sean. He was feeling uptight.

"It's going to be our home for good," muttered Sean. "Unless you can fix the tachyon machine."

The teens started to explore a trail leading out of the village. A teenager ran up to them. He seemed frightened by something along the trail. And from his gestures, it was something big and dangerous.

"I think he's trying to warn us about horrible prehistoric beasts out there," said Sean. The teens





heard a whizzing sound. Sean shouted in pain. An arrow had pierced his shoulder! They saw Komasha with a bow. He was laughing.

Scan was hurt, but Jenny managed to get him back to the village. There, Byami helped Sean into an empty house. The village "medicine man" arrived. He carefully removed the arrow from Sean's shoulder. He then took out some leaves from a pouch and placed them on the wound.

Sean exclaimed, "Hey, you're no doctor!" But Jenny said, "These leaves probably contain healing medicine. Let him do it." She was right. The leaves made the pain stop.

Next day, villagers brought the teens food. They looked at Sean's arm and patted him on the head. "People here are pretty nice," said Jenny.

"Except for Komasha," said Sean. "We've got to leave before he finishes us off."

One of the visitors was a pretty young girl. Her name was Dosati. She hung around Sean for hours, talking to him. He couldn't understand her words. But he liked her anyway.

For some reason, Jenny didn't think it was too cool that Dosati spent time with Sean. Like, who did Dosati think she was?

On Dosati's second visit, she held Sean's hand. Jenny frowned. "Soon you two will be dating."

The Wrath of Komasha

Sean soon felt strong enough to walk outside. He and Dosati strolled to Byami's house. Komasha spotted them. His eyeballs bulged. He started screaming. Dosati shook, She pointed to Komasha and then to herself. Sean turned pale. He said to Jenny, "I think Komasha is Dosati's father!"

Komasha picked up a wooden club. "Let's get out of here!" yelled Sean. The teens started running, Komasha right behind them.

"This way," shouted Sean. They darted up a trail leading out of the village. Behind them, Komasha hesitated. Jenny grabbed Sean's shirt. "We're going on the trail where the monsters are."

"I'd rather face a monster than Komasha," he gasped. They kept running.

Looking back fearfully, they saw Komasha waving his club. He was gaining on them.

And then they heard it. A terrible roaring noise ahead. The teens stopped. So did Komasha. He was frightened, but he still kept coming.

"We're trapped," cried Jenny. They decided to take their chances with whatever was ahead. Crashing through the thick leaves, they saw it! They couldn't believe their eyes!

In front of them was a bulldozer! It was knocking down trees. Painted on its door was the flag of Brazil. "We're in the Amazon rain forest!" cried Jenny.

A crumpled Brazilian newspaper lay on the ground. Sean picked it up. "This isn't prehistoric times. It's 1995!"

Behind them was Komasha. In front of them was a guard for the company clearing the forest. He had a rifle and was moving toward them.

The End of the Trail

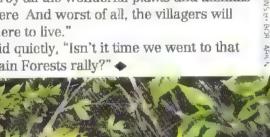
Jenny took out her tachvon machine. "Please, work." It didn't. Opening it up, she saw something. One battery wasn't sitting flat. She pressed the battery down into its compartment and shut the case. Meantime, Komasha had caught up to them. He raised his club. The guard raised his rifle.

Jenny pressed the button. And...

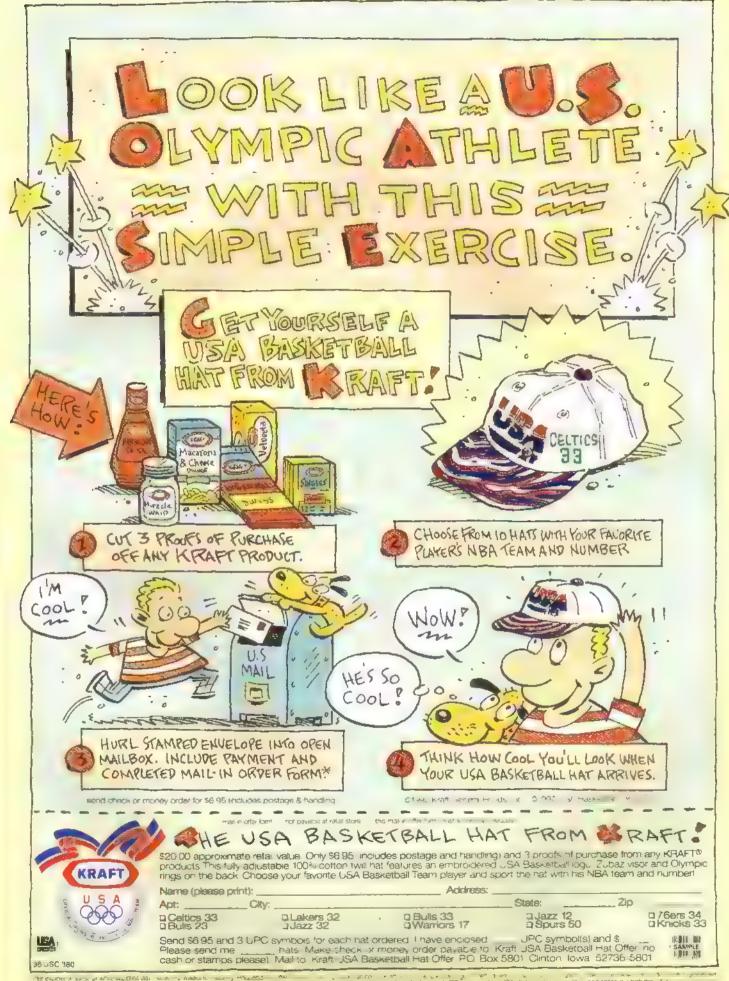
The teens were back in Jenny's room, the instant after they had left it. They dripped sweat.

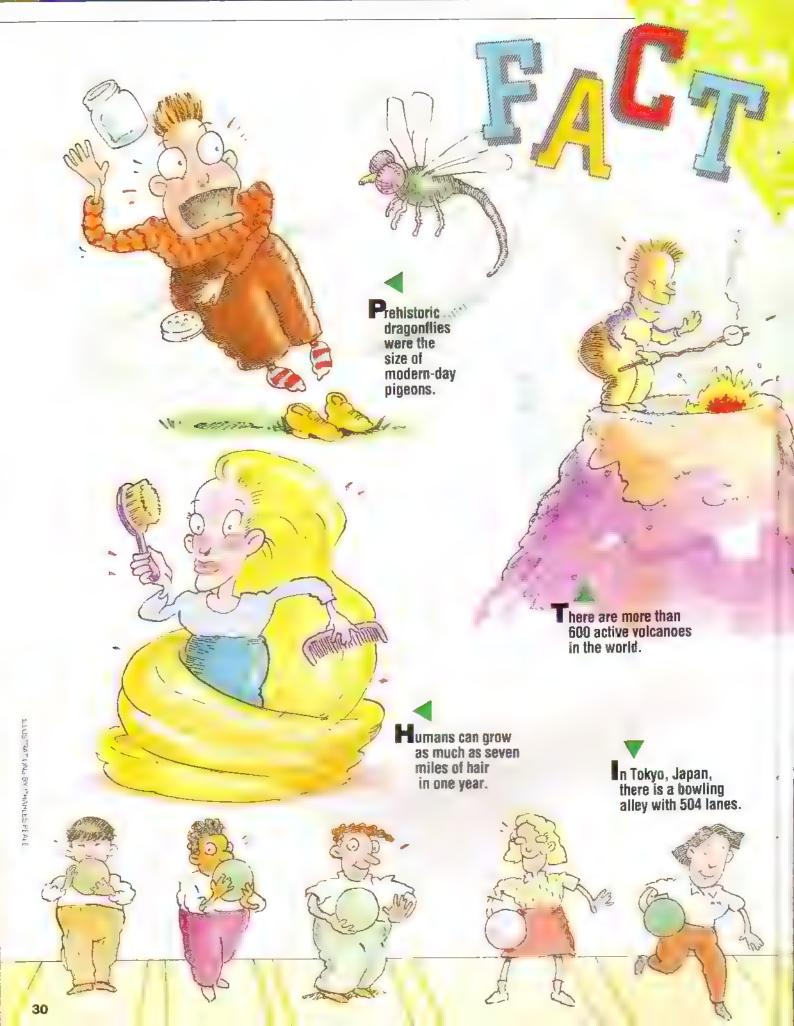
Jenny said, "If they knock down the rain forest, they'll destroy all the wonderful plants and animals that live there And worst of all, the villagers will have nowhere to live."

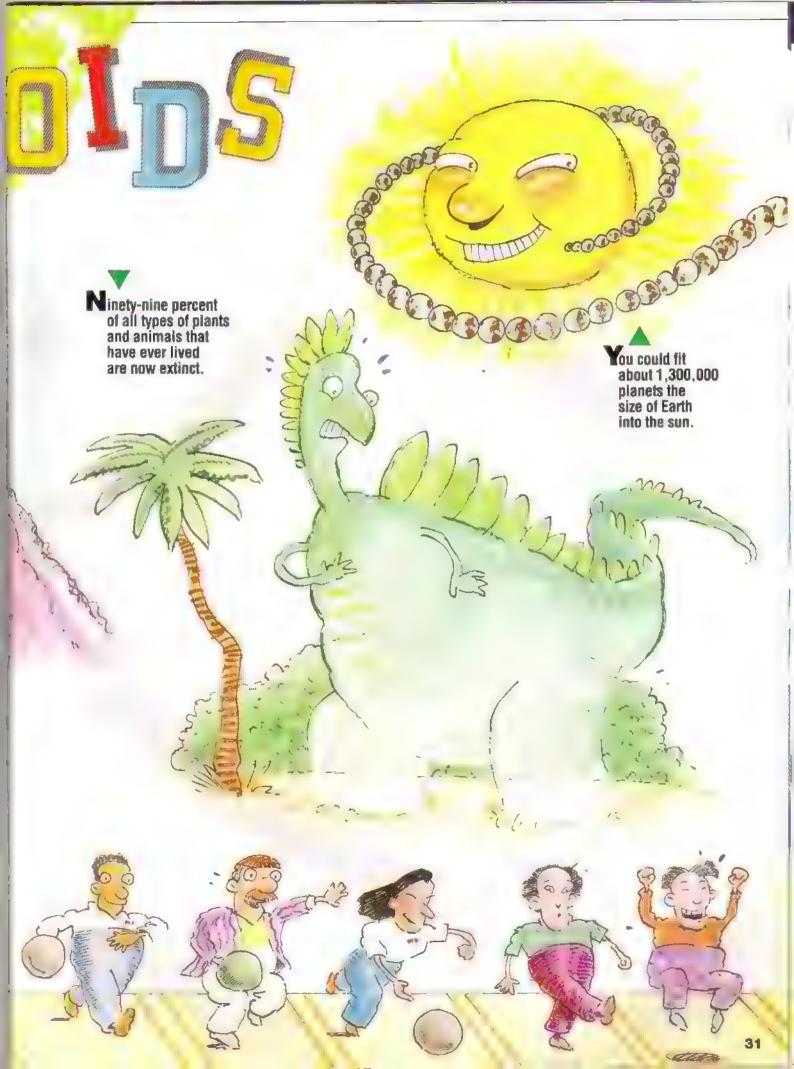
Sean said quietly, "Isn't it time we went to that Save the Rain Forests rally?"













Programs For Your Computer

LATE FOR LUNCH

For IBM, Apple II and Commodore 64 Computers

You've just buried a time capsule in your yard. It won't be opened for three hundred years. Now it's time to eat. But wait! Where's your lunch? It's buried in the time capsule, and you can't remember where you buried it. You'd better find it soon, though. Some things just shouldn't sit around for three hundred years.

In this program, your yard is a grid of X's, eight by eight. The time capsule is made of six B's. Try to find the capsule, hidden in the grid, in as few moves as possible. But hurry, or your lunch may come looking for you.

This program is written for the IBM PC. To run it on Apple II, change line 100 to: 100 ID=2. For the Commodore 64, change line 100 to: 100 ID-3.

- 100 ID=1:RANDOMIZE(TIMER)
- 11Ø UC=Ø SC=0
- 128 GOSUB 398, GOSUB 249 GOSUB 298
- 13Ø GOSUB 43Ø
- 148 INPUT *Guess a row letter. *: RS
- 150 GX=ASC(R\$)-64: IF GX>8 THEN GX=GX-32
- 160 IF GX<1 OR GX>8 THEN 130
- 170 GOSUB 430: INPUT "Guess a

- column number: ":C\$
- 180 GY=VAL(C\$): IF GY<1 OR GY>8 THEN 170
- 190 RX=0: IF GX>=BX AND GX<=BX+WX THEN RX = 1
- 200 RY=0: IF GY>=BY AND GY<=BY+WY THEN RY = 1
- 210 IF RX=1 AND RY=1 THEN GOSUB 450
- 220 IF RY-Ø OR RX=Ø THEN GOSUB 590
- 23Ø GOTO 13Ø
- 249 FOR X=1 TO 8: PX= 1:PY = 4*X
- 250 GOSUB 320; PRINT X;
- 260 PY=1: PX=2*X+1: GOSUB 320* PRINT CHRS(64+X):
- 270 FOR Y=1 TO 8: PY = 4*Y+1: PX=2*X+1: GOSUB 320 PRINT "X";
- 280 NEXT: NEXT: RETURN
- 290 WX = INT(RND(1)*2)+1: WY = 3-WX
- 300 BX = INT(RND(1)*6)+3-WX: BY = INT(RND(1)*6)+3-WY
- 310 RETURN
- 320 ON ID GOSLIB 330, 340, 350. RETURN
- 330 LOCATE PX, PY: RETURN
- 340 VTAB PX: HTAB PY: RETURN
- 35Ø PRINT CHR\$(19):
- 360 FOR J=2 TO PY; PRINT CHR\$(29); NEXT
- 370 FOR J=2 TO PX: PRINT CHR\$(17);:NEXT
- 380 RETURN
- 390 ON ID GOSUB 400, 410, 420: RETURN
- 400 CLS: RETURN
- 410 HOME: RETURN
- 420 PRINT CHR\$(147): RETURN
- 430 PX-29: PY=1: GOSUB 329. FOR K=1 TO 38: PRINT "";
- 440 PX=20 PY=1: GOSUB 320

450 PX =2"GX+1: PY=4"GY+1 GOSUB 329 PRINT "B" 460 UC=UC+1: IF UC=6 THEN-490 479 GOSUB 436: PRINT "On the FOR PE=1 TO 3200 NEXT. RETURN GOSUB 430" PRINT "You got IF SC>9 THEN 570 ON INT(SC/2)±1 GOSUB 520. 530, 540, 550, 560 PRINT "Let's eat!": GOTO 580 PRINT "It's just a little stale!": **GOTO 580** PRINT "But leave it alone!" **GOTO 589** PRINT "But can you recognize 27", GOTO 589 PRINT "Now don't let il get you!": **GOTO 580** PRINT "Yuck!" 580 PRINT SC* missed guesses." 590 PX =2"GX+1: PY=4"GY+1

GOSUB 329" PRINT "

610 FOR PE=1 TO 3200: NEXT:

RETURN

RETURN

SEND US YOUR PROGRAMS

SC=SC+1 GOSUB 430 PRINT

"Sandwich is getting older!"

If you've written a program you'd like us to print, send it in. If we like it, we'll print it and send you \$25. Include a note telling us your name, address, age, T-shirt size and type of computer.

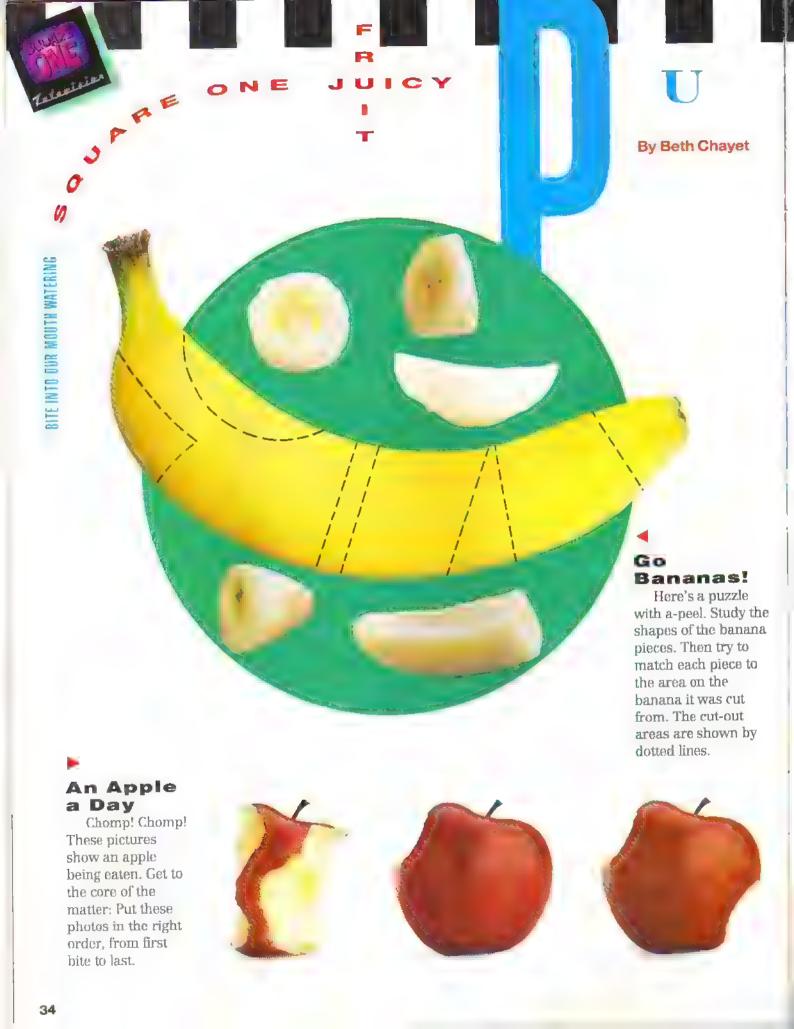
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VIDIO MAKE IT TO THE START OF THE MARATHON? ADD UP THE NUMBER OF VINUTES AND SECONDS IT TOOK IDA TO PASS THROUGH EACH EVENT. THEN ADD ON 8 MINUTES AND 44 SECONDS -- THE TOTAL TIME IT TOOK HER TO GET FROM ONE VENT TO ANOTHER AND FINALLY TO THE MARATHON. IF SHE MADE IT IN 19 MINUTES OR LESS, HEN SHE'S OFF TO A GOOD START. FOR THE ANSWER, RACE TO THE DID IT PAGE.



LOST IN TIME

The class of 3008 B.C. filled a time capsule with their favorite stuff. They buried it at one of the locations shown on this town map. Now 5,000 years later, the class of 1992 A.D. wants to dig it up. But there's one problem: The kids don't know where the time capsule is buried.

Use the clues below to help them find the **X** that marks the buried capsule.

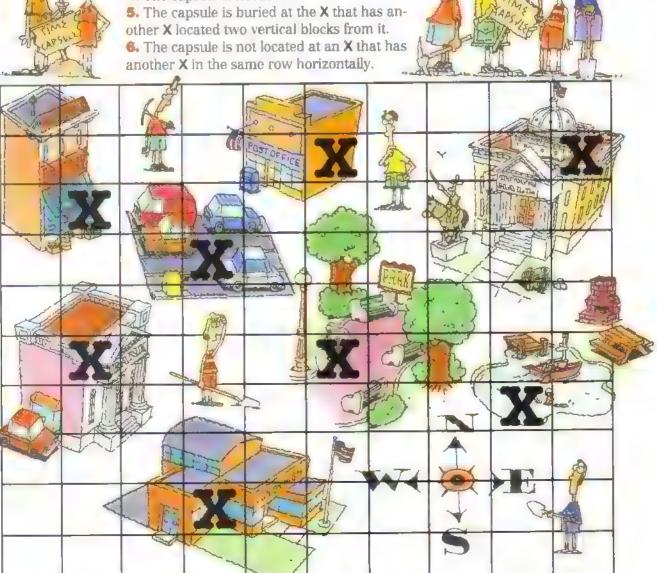
We've uncovered the answer on the Did It page.

1. The capsule is not located at the X that is closest to the Town Hall.

2. The capsule is not located at the X that has an odd number of vertical blocks between it and another X.

3. The capsule is buried west of the park.

4. The capsule is not south of the lake.



GOING FOR THE GOLD

Here's one game you won't find in the Olympics. But be a sport and play it anyway. Place the sports words (at right) in the grid, so the letters fill all the boxes. Like a crossword puzzle, some words go through each other. The numbers tell you how many letters each word has. When you're finished, the letters in the shaded boxes will spell out the country where the Olympics are being held. We put in four words to get you going. So let the game begin!

Race to the Did It page for the answer.

10 Basketball Gymnastics

> Diving Rowing Tennis Soccer

Cycling Hurdles

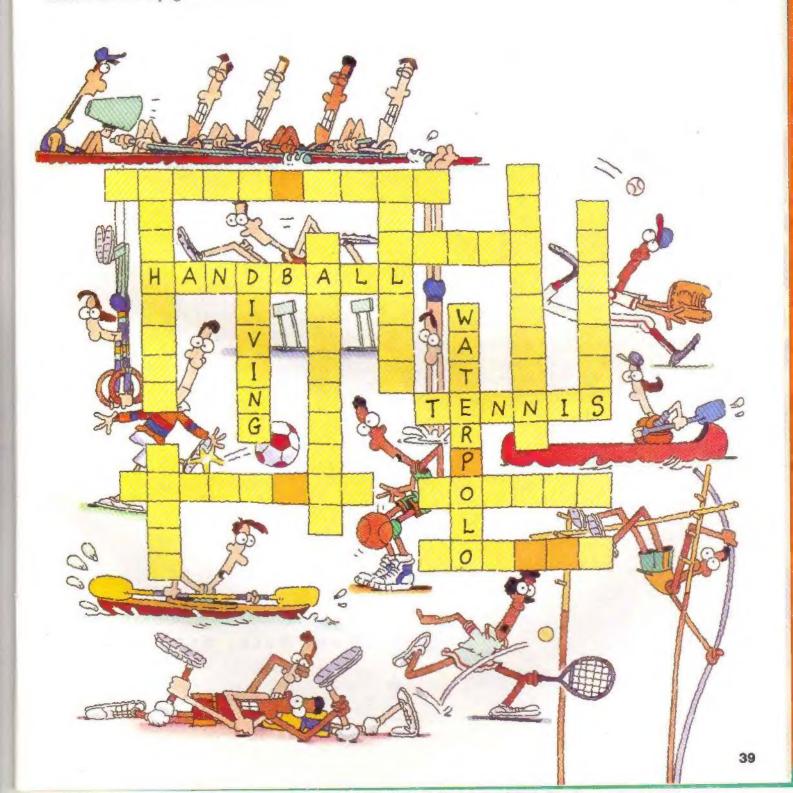
Baseball

Handball

Yachting

Water Polo Wrestling

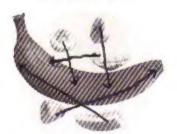
5 Canoe Kayak





BANANASI

ORANGE DONE YET?





30

E A

60

雷

Answer: 10

APPLE A DAY



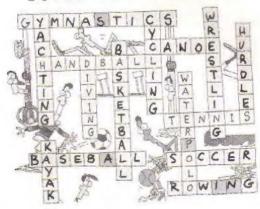
A RACE TO THE RACES

It took Ida nine minutes and 16 seconds to go through all of the events. It took her another eight minutes and 44 seconds to get to the events. Those two times add up to 18 minutes. That puts her at the starting line at 8:59. Ida made it in time for the race by one minute.

LOST IN TIME

The capsule is buried in the grocery store.

GOING FOR THE GOLD



Answer: SPAIN

WE GOOFED

On the May 1992 Did It page, we gave the answer for a puzzle that doesn't appear in the issue ("The Oddest Coins").

MONTH NEXT

Summer's almost over. But you have plenty to look forward to in our September 1992 issue of 3-2-1 CONTACT:

DOUBLE TROUBLE

There were dinosaurs. And then there were dinosaurs! One of the biggest, baddest monsters around was Tyrannosaurus rex. And now scientists have two nearly complete skeletons to prove it. Read the new news about one of the most terrifying beasts that ever walked the Earth.

FUNNY BUSINESS

Knock, knock. Who's there? Arthur. Arthur who? Arthur any more jokes? Yeah, plenty! This yuk-filled feature tells why laughter is the best medicine. You'll not only get a good chuckle, but you'll learn why jokes make you feel good, too.

THE WRITE STUFF

Before rocketships ever blasted off, science fiction writers were launching their own amazing spacecraft-in their stories. Take an out-of-thisworld look at their sometimes wonderful, sometimes wacky dreams of space travel.

PIUS

THE TIME TEAM

FACTOID 8

MUCH

Corrections: January/February '92, Kilausa eruption (p. 8 and 9). © Franco Salmoiraghi/Photo Resource Hawaii, Yanomamo child (p.17), © Nair Benedicto/SIPA Press.



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